RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/561,487A

Source: _____ IFWO

Date Processed by STIC: _____ 11/20/2006

ENTERED

RAW SEQUENCE LISTING   DATE: 11/20/2006
PATENT APPLICATION: US/10/561,487A   TIME: 13:51:21

Input Set : N:\efs\10561487a_efs\66168_03SeqList.txt
Output Set: N:\CRF4\11202006\J561487A.raw

```
 3 <110> APPLICANT: The Government of the United States of America as
 4        represented by the Secretary of the Department of Health and
 5        Human Services
 6        Drayna, Dennis
 7        Kim, Un-kyung
 9 <120> TITLE OF INVENTION: VARIANTS OF HUMAN TASTE RECEPTOR GENES
11 <130> FILE REFERENCE: 4239-66168-03
13 <140> CURRENT APPLICATION NUMBER: US 10/561,487A
14 <141> CURRENT FILING DATE: 2005-12-19
16 <150> PRIOR APPLICATION NUMBER: US 60/480,035
17 <151> PRIOR FILING DATE: 2003-06-19
19 <150> PRIOR APPLICATION NUMBER: PCT/US2004/19489
20 <151> PRIOR FILING DATE: 2004-06-19
22 <160> NUMBER OF SEQ ID NOS: 264
24 <170> SOFTWARE: PatentIn version 3.3
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 900
28 <212> TYPE: DNA
29 <213> ORGANISM: Homo sapiens
32 <220> FEATURE:
33 <221> NAME/KEY: CDS
34 <222> LOCATION: (1)..(900)
36 <220> FEATURE:
37 <221> NAME/KEY: variation
38 <222> LOCATION: (332)..(332)
39 <223> OTHER INFORMATION: r is g or a
41 <220> FEATURE:
42 <221> NAME/KEY: variation
43 <222> LOCATION: (616)..(616)
44 <223> OTHER INFORMATION: y is t or c
46 <400> SEQUENCE: 1
47 atg cta gag tct cac ctc att atc tat ttt ctt ctt gca gtg ata caa      48
48 Met Leu Glu Ser His Leu Ile Ile Tyr Phe Leu Leu Ala Val Ile Gln
49 1               5                   10                  15
51 ttt ctt ctt ggg att ttc aca aat ggc atc att gtg gtg gtg aat ggc      96
52 Phe Leu Leu Gly Ile Phe Thr Asn Gly Ile Ile Val Val Val Asn Gly
53              20                  25                  30
55 att gac ttg atc aag cac aga aaa atg gct ccg ctg gat ctc ctt ctt     144
56 Ile Asp Leu Ile Lys His Arg Lys Met Ala Pro Leu Asp Leu Leu Leu
57              35                  40                  45
59 tct tgt ctg gca gtt tct aga att ttt ctg cag ttg ttc atc ttc tac     192
60 Ser Cys Leu Ala Val Ser Arg Ile Phe Leu Gln Leu Phe Ile Phe Tyr
61     50                  55                  60
```

```
       63 gtt aat gtg att gtt atc ttc ttc ata gaa ttc atc atg tgt tct gcg        240
       64 Val Asn Val Ile Val Ile Phe Phe Ile Glu Phe Ile Met Cys Ser Ala
       65 65             70              75              80
       67 aat tgt gca att ctc tta ttt ata aat gaa ttg gaa ctt tgg ctt gcc        288
       68 Asn Cys Ala Ile Leu Leu Phe Ile Asn Glu Leu Glu Leu Trp Leu Ala
       69             85              90              95
       71 aca tgg ctc gga gtt ttc tat tgt gcc aag gtt gcc agc gtc crt cac        336
W-->   72 Thr Trp Leu Gly Val Phe Tyr Cys Ala Lys Val Ala Ser Val Xaa His
       73             100             105             110
       75 cca ctc ttc atc tgg ttg aag atg agg ata tcc aag ctg gtc cca tgg        384
       76 Pro Leu Phe Ile Trp Leu Lys Met Arg Ile Ser Lys Leu Val Pro Trp
       77             115             120             125
       79 atg atc ctg ggg tct ctg cta tat gta tct atg att tgt gtt ttc cat        432
       80 Met Ile Leu Gly Ser Leu Leu Tyr Val Ser Met Ile Cys Val Phe His
       81     130             135             140
       83 agc aaa tat gca ggg ttt atg gtc cca tac ttc cta agg aaa ttt ttc        480
       84 Ser Lys Tyr Ala Gly Phe Met Val Pro Tyr Phe Leu Arg Lys Phe Phe
       85 145             150             155             160
       87 tcc caa aat gcc aca att caa aaa gaa gat aca ctg gct ata cag att        528
       88 Ser Gln Asn Ala Thr Ile Gln Lys Glu Asp Thr Leu Ala Ile Gln Ile
       89             165             170             175
       91 ttc tct ttt gtt gct gag ttc tca gtg cca ttg ctt atc ttc ctt ttt        576
       92 Phe Ser Phe Val Ala Glu Phe Ser Val Pro Leu Leu Ile Phe Leu Phe
       93             180             185             190
       95 gct gtt ttg ctc ttg att ttc tct ctg ggg agg cac acc ygg caa atg        624
W-->   96 Ala Val Leu Leu Leu Ile Phe Ser Leu Gly Arg His Thr Xaa Gln Met
       97             195             200             205
       99 aga aac aca gtg gcc ggc agc agg gtt cct ggc agg ggt gca ccc atc        672
      100 Arg Asn Thr Val Ala Gly Ser Arg Val Pro Gly Arg Gly Ala Pro Ile
      101     210             215             220
      103 agc gcg ttg ctg tct atc ctg tcc ttc ctg atc ctc tac ttc tcc cac        720
      104 Ser Ala Leu Leu Ser Ile Leu Ser Phe Leu Ile Leu Tyr Phe Ser His
      105 225             230             235             240
      107 tgc atg ata aaa gtt ttt ctc tct tct cta aag ttt cac atc aga agg        768
      108 Cys Met Ile Lys Val Phe Leu Ser Ser Leu Lys Phe His Ile Arg Arg
      109             245             250             255
      111 ttc atc ttt ctg ttc ttc atc ctt gtg att ggt ata tac cct tct gga        816
      112 Phe Ile Phe Leu Phe Phe Ile Leu Val Ile Gly Ile Tyr Pro Ser Gly
      113             260             265             270
      115 cac tct ctc atc tta att tta gga aat cct aaa ttg aaa caa aat gca        864
      116 His Ser Leu Ile Leu Ile Leu Gly Asn Pro Lys Leu Lys Gln Asn Ala
      117     275             280             285
      119 aaa aag ttc ctc ctc cac agt aag tgc tgt cag tga                        900
      120 Lys Lys Phe Leu Leu His Ser Lys Cys Cys Gln
      121     290             295
      124 <210> SEQ ID NO: 2
      125 <211> LENGTH: 299
      126 <212> TYPE: PRT
      127 <213> ORGANISM: Homo sapiens
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/561,487A

DATE: 11/20/2006
TIME: 13:51:21

Input Set : N:\efs\10561487a_efs\66168_03SeqList.txt
Output Set: N:\CRF4\11202006\J561487A.raw

```
129 <220> FEATURE:
130 <221> NAME/KEY: misc_feature
131 <222> LOCATION: (111)..(111)
132 <223> OTHER INFORMATION: The 'Xaa' at location 111 stands for Arg, or His.
134 <220> FEATURE:
135 <221> NAME/KEY: misc_feature
136 <222> LOCATION: (206)..(206)
137 <223> OTHER INFORMATION: The 'Xaa' at location 206 stands for Arg, or Trp.
139 <400> SEQUENCE: 2
141 Met Leu Glu Ser His Leu Ile Ile Tyr Phe Leu Leu Ala Val Ile Gln
142 1               5                   10                  15
145 Phe Leu Leu Gly Ile Phe Thr Asn Gly Ile Ile Val Val Val Asn Gly
146             20              25                  30
149 Ile Asp Leu Ile Lys His Arg Lys Met Ala Pro Leu Asp Leu Leu Leu
150         35              40                  45
153 Ser Cys Leu Ala Val Ser Arg Ile Phe Leu Gln Leu Phe Ile Phe Tyr
154     50                  55                  60
157 Val Asn Val Ile Val Ile Phe Phe Ile Glu Phe Ile Met Cys Ser Ala
158 65                  70                  75                  80
161 Asn Cys Ala Ile Leu Leu Phe Ile Asn Glu Leu Glu Leu Trp Leu Ala
162             85                  90                  95
```
W--> `165 Thr Trp Leu Gly Val Phe Tyr Cys Ala Lys Val Ala Ser Val Xaa His`
```
166             100             105                 110
169 Pro Leu Phe Ile Trp Leu Lys Met Arg Ile Ser Lys Leu Val Pro Trp
170         115             120                 125
173 Met Ile Leu Gly Ser Leu Leu Tyr Val Ser Met Ile Cys Val Phe His
174     130             135                 140
177 Ser Lys Tyr Ala Gly Phe Met Val Pro Tyr Phe Leu Arg Lys Phe Phe
178 145             150                 155                 160
181 Ser Gln Asn Ala Thr Ile Gln Lys Glu Asp Thr Leu Ala Ile Gln Ile
182             165                 170                 175
185 Phe Ser Phe Val Ala Glu Phe Ser Val Pro Leu Leu Ile Phe Leu Phe
186             180                 185                 190
```
W--> `189 Ala Val Leu Leu Leu Ile Phe Ser Leu Gly Arg His Thr Xaa Gln Met`
```
190         195                 200                 205
193 Arg Asn Thr Val Ala Gly Ser Arg Val Pro Gly Arg Gly Ala Pro Ile
194     210                 215                 220
197 Ser Ala Leu Leu Ser Ile Leu Ser Phe Leu Ile Leu Tyr Phe Ser His
198 225             230                 235                 240
201 Cys Met Ile Lys Val Phe Leu Ser Ser Leu Lys Phe His Ile Arg Arg
202             245                 250                 255
205 Phe Ile Phe Leu Phe Phe Ile Leu Val Ile Gly Ile Tyr Pro Ser Gly
206             260                 265                 270
209 His Ser Leu Ile Leu Ile Leu Gly Asn Pro Lys Leu Lys Gln Asn Ala
210         275                 280                 285
213 Lys Lys Phe Leu Leu His Ser Lys Cys Cys Gln
214     290             295
217 <210> SEQ ID NO: 3
218 <211> LENGTH: 951
```

RAW SEQUENCE LISTING   DATE: 11/20/2006
PATENT APPLICATION: US/10/561,487A   TIME: 13:51:21

Input Set : **N:\efs\10561487a_efs\66168_03SeqList.txt**
Output Set: **N:\CRF4\11202006\J561487A.raw**

```
219 <212> TYPE: DNA
220 <213> ORGANISM: Homo sapiens
223 <220> FEATURE:
224 <221> NAME/KEY: CDS
225 <222> LOCATION: (1)..(951)
227 <220> FEATURE:
228 <221> NAME/KEY: variation
229 <222> LOCATION: (349)..(349)
230 <223> OTHER INFORMATION: y is t or c
232 <220> FEATURE:
233 <221> NAME/KEY: variation
234 <222> LOCATION: (807)..(807)
235 <223> OTHER INFORMATION: y is t or c
237 <220> FEATURE:
238 <221> NAME/KEY: variation
239 <222> LOCATION: (852)..(852)
240 <223> OTHER INFORMATION: y is t or c
242 <400> SEQUENCE: 3
243 atg atg gga ctc acc gag ggg gtg ttc ctg att ctg tct ggc acc cag      48
244 Met Met Gly Leu Thr Glu Gly Val Phe Leu Ile Leu Ser Gly Thr Gln
245 1               5                   10                  15
247 ttc aca ctg gga att ctg gtc aat tgt ttc att gag ttg gtc aat ggt      96
248 Phe Thr Leu Gly Ile Leu Val Asn Cys Phe Ile Glu Leu Val Asn Gly
249                 20                  25                  30
251 agc agc tgg ttc aag acc aag aga atg tct ttg tct gac ttc atc atc     144
252 Ser Ser Trp Phe Lys Thr Lys Arg Met Ser Leu Ser Asp Phe Ile Ile
253         35                  40                  45
255 acc acc ctg gca ctc ttg agg atc att ctg ctg tgt att atc ttg act     192
256 Thr Thr Leu Ala Leu Leu Arg Ile Ile Leu Leu Cys Ile Ile Leu Thr
257     50                  55                  60
259 gat agt ttt tta ata gaa ttc tct ccc aac aca cat gat tca ggg ata     240
260 Asp Ser Phe Leu Ile Glu Phe Ser Pro Asn Thr His Asp Ser Gly Ile
261 65                  70                  75                  80
263 ata atg caa att att gat gtt tcc tgg aca ttt aca aac cat ctg agc     288
264 Ile Met Gln Ile Ile Asp Val Ser Trp Thr Phe Thr Asn His Leu Ser
265                 85                  90                  95
267 att tgg ctt gcc acc tgt ctt ggt gtc ctc tac tgc ctg aaa atc gcc     336
268 Ile Trp Leu Ala Thr Cys Leu Gly Val Leu Tyr Cys Leu Lys Ile Ala
269             100                 105                 110
271 agt ttc tct cac ycc aca ttc ctc tgg ctc aag tgg aga gtt tct agg     384
W--> 272 Ser Phe Ser His Xaa Thr Phe Leu Trp Leu Lys Trp Arg Val Ser Arg
273             115                 120                 125
275 gtg atg gta tgg atg ctg ttg ggt gca ctg ctc tta tcc tgt ggt agt     432
276 Val Met Val Trp Met Leu Leu Gly Ala Leu Leu Leu Ser Cys Gly Ser
277     130                 135                 140
279 acc gca tct ctg atc aat gag ttt aag ctc tat tct gtc ttt agg gga     480
280 Thr Ala Ser Leu Ile Asn Glu Phe Lys Leu Tyr Ser Val Phe Arg Gly
281 145                 150                 155                 160
283 att gag gcc acc agg aat gtg act gaa cac ttc aga aag aag agg agt     528
```

```
284 Ile Glu Ala Thr Arg Asn Val Thr Glu His Phe Arg Lys Lys Arg Ser
285             165             170             175
287 gag tat tat ctg atc cat gtt ctt ggg act ctg tgg tac ctg cct ccc       576
288 Glu Tyr Tyr Leu Ile His Val Leu Gly Thr Leu Trp Tyr Leu Pro Pro
289             180             185             190
291 tta att gtg tcc ctg gcc tcc tac tct ttg ctc atc ttc tcc ctg ggg       624
292 Leu Ile Val Ser Leu Ala Ser Tyr Ser Leu Leu Ile Phe Ser Leu Gly
293             195             200             205
295 agg cac aca cgg cag atg ctg caa aat ggg aca agc tcc aga gat cca       672
296 Arg His Thr Arg Gln Met Leu Gln Asn Gly Thr Ser Ser Arg Asp Pro
297     210             215             220
299 acc act gag gcc cac aag agg gcc atc aga atc atc ctt tcc ttc ttc       720
300 Thr Thr Glu Ala His Lys Arg Ala Ile Arg Ile Ile Leu Ser Phe Phe
301 225             230             235             240
303 ttt ctc ttc tta ctt tac ttt ctt gct ttc tta att gca tca ttt ggt       768
304 Phe Leu Phe Leu Leu Tyr Phe Leu Ala Phe Leu Ile Ala Ser Phe Gly
305             245             250             255
307 aat ttc cta cca aaa acc aag atg gct aag atg att ggy gaa gta atg       816
308 Asn Phe Leu Pro Lys Thr Lys Met Ala Lys Met Ile Xaa Glu Val Met
309             260             265             270
311 aca atg ttt tat cct gct ggc cac tca ttt att cty att ctg ggg aac       864
312 Thr Met Phe Tyr Pro Ala Gly His Ser Phe Ile Xaa Ile Leu Gly Asn
313             275             280             285
315 agt aag ctg aag cag aca ttt gta gtg atg ctc cgg tgt gag tct ggt       912
316 Ser Lys Leu Lys Gln Thr Phe Val Val Met Leu Arg Cys Glu Ser Gly
317     290             295             300
319 cat ctg aag cct gga tcc aag gga ccc att ttc tct tag                   951
320 His Leu Lys Pro Gly Ser Lys Gly Pro Ile Phe Ser
321 305             310             315
324 <210> SEQ ID NO: 4
325 <211> LENGTH: 316
326 <212> TYPE: PRT
327 <213> ORGANISM: Homo sapiens
329 <220> FEATURE:
330 <221> NAME/KEY: misc_feature
331 <222> LOCATION: (117)..(117)
332 <223> OTHER INFORMATION: The 'Xaa' at location 117 stands for Pro, or Ser.
334 <220> FEATURE:
335 <221> NAME/KEY: misc_feature
336 <222> LOCATION: (269)..(269)
337 <223> OTHER INFORMATION: The 'Xaa' at location 269 stands for Gly.
339 <220> FEATURE:
340 <221> NAME/KEY: misc_feature
341 <222> LOCATION: (284)..(284)
342 <223> OTHER INFORMATION: The 'Xaa' at location 284 stands for Leu.
344 <400> SEQUENCE: 4
346 Met Met Gly Leu Thr Glu Gly Val Phe Leu Ile Leu Ser Gly Thr Gln
347 1               5               10              15
350 Phe Thr Leu Gly Ile Leu Val Asn Cys Phe Ile Glu Leu Val Asn Gly
```

W--> 308 (marked)

W--> 312 (marked)

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/20/2006
PATENT APPLICATION: US/10/561,487A   TIME: 13:51:22

Input Set : N:\efs\10561487a_efs\66168_03SeqList.txt
Output Set: N:\CRF4\11202006\J561487A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 111,206
Seq#:2; Xaa Pos. 111,206
Seq#:3; Xaa Pos. 117,269,284
Seq#:4; Xaa Pos. 117,269,284
Seq#:5; Xaa Pos. 3,7,62,96,171
Seq#:6; Xaa Pos. 3,7,62,96,171
Seq#:7; Xaa Pos. 26,79,113,167,213,294
Seq#:8; Xaa Pos. 26,79,113,167,213,294
Seq#:9; Xaa Pos. 263
Seq#:10; Xaa Pos. 263
Seq#:11; Xaa Pos. 166,183,277,308
Seq#:12; Xaa Pos. 166,183,277,308
Seq#:13; Xaa Pos. 67,150,187,289,294
Seq#:14; Xaa Pos. 67,150,187,289,294
Seq#:15; Xaa Pos. 40,156,174,188,209
Seq#:16; Xaa Pos. 40,156,174,188,209
Seq#:17; Xaa Pos. 259
Seq#:18; Xaa Pos. 259
Seq#:19; Xaa Pos. 86
Seq#:20; Xaa Pos. 86
Seq#:21; Xaa Pos. 100,101,154,172,222,282
Seq#:22; Xaa Pos. 100,101,154,172,222,282
Seq#:23; Xaa Pos. 49,80,262,274,296
Seq#:24; Xaa Pos. 49,80,262,274,296
Seq#:25; Xaa Pos. 193,197
Seq#:26; Xaa Pos. 193,197
Seq#:27; Xaa Pos. 187,273
Seq#:28; Xaa Pos. 187,273
Seq#:29; Xaa Pos. 63,127,195
Seq#:30; Xaa Pos. 63,127,195
Seq#:31; Xaa Pos. 35,90,154,170,200,212,221,294,295,297
Seq#:32; Xaa Pos. 35,90,154,170,200,212,221,294,295,297
Seq#:33; Xaa Pos. 35,162,200,217,227,240,248,276,281
Seq#:34; Xaa Pos. 35,162,200,217,227,240,248,276,281
Seq#:35; Xaa Pos. 36,228,250,288
Seq#:36; Xaa Pos. 36,228,250,288
Seq#:39; Xaa Pos. 32,109,140,152,225,240,267,295,299
Seq#:40; Xaa Pos. 32,109,140,152,225,240,267,295,299
Seq#:41; Xaa Pos. 141,143,148,172,236,252,255,270
Seq#:42; Xaa Pos. 141,143,148,172,236,252,255,270
Seq#:45; Xaa Pos. 199
Seq#:46; Xaa Pos. 199

VERIFICATION SUMMARY   DATE: 11/20/2006
PATENT APPLICATION: **US/10/561,487A**   TIME: 13:51:22

Input Set : **N:\efs\10561487a_efs\66168_03SeqList.txt**
Output Set: **N:\CRF4\11202006\J561487A.raw**

```
L:72 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:336
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:624
L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:96
L:189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:192
L:272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:384
L:308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:816
L:312 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:864
L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:112
L:410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:256
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:272
L:463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:48
L:475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:192
L:483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:288
L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:528
L:571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:48
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:80
L:611 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:160
L:693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:96
L:705 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:240
L:717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:384
L:729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:528
L:741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:672
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:900
L:806 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:16
L:818 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:64
L:830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:112
L:842 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:160
L:854 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:208
L:874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:288
L:959 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:816
L:1051 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:256
L:1139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:528
L:1143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:576
L:1167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:864
L:1175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:930
L:1246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:160
L:1250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:176
L:1274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:272
L:1282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:304
L:1339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:240
L:1359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:480
L:1367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:576
L:1395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:912
L:1451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:64
L:1471 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:144
L:1479 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:176
L:1507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:288
```

VERIFICATION SUMMARY   DATE: 11/20/2006
PATENT APPLICATION: US/10/561,487A   TIME: 13:51:22

Input Set : **N:\efs\10561487a_efs\66168_03SeqList.txt**
Output Set: **N:\CRF4\11202006\J561487A.raw**

```
L:1560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:144
L:1588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:480
L:1592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:528
L:1596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:576
L:1604 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:672
L:1672 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:32
L:1700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:144
L:1704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:160
L:1708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:176
L:1716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:208
L:1825 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:816
L:1913 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:256
L:1962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:288
L:2054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:80
L:2180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:336
L:2192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:480
L:2196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:528
L:2208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:672
L:2224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:864
L:2293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:96
L:2305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:144
L:2309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:160
L:2321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:208
L:2337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:272
L:2394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:192
L:2398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:240
L:2446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:816
L:2450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:864
L:2454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:912
L:2510 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:48
L:2514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:64
L:2562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:256
L:2566 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:272
L:2570 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:288
L:2652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:624
L:2757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:192
L:2863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:576
L:2887 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:864
L:2964 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:176
L:2988 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:272
L:3043 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:192
L:3059 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:384
L:3079 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:624
L:3145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:48
L:3161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:112
L:3181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:192
L:3283 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:144
L:3295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:288
L:3311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:480
```

```
L:3315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:528
L:3323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:624
L:3327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:672
L:3347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:912
L:3420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:32
L:3432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:80
L:3448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:144
L:3452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:160
L:3460 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:192
L:3464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:208
L:3484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:288
L:3557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:144
L:3589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:528
L:3597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:624
L:3601 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:672
L:3605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:720
L:3609 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:768
L:3617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:864
L:3689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:32
L:3721 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:160
L:3729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:192
L:3733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:208
L:3737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:224
L:3741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:240
L:3749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:272
L:3801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:144
L:3849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:720
L:3853 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:768
L:3861 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:864
L:3904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:32
L:3952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:224
L:3956 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:240
L:3964 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:272
L:4212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:96
L:4232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:336
L:4240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:432
L:4244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:480
L:4264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:720
L:4272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:816
L:4280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:900
L:4340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:16
L:4360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:96
L:4368 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:128
L:4372 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:144
L:4392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:224
L:4400 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:256
L:4408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:288
L:4496 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:432
L:4500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:480
```

VERIFICATION SUMMARY　　　　　　　　DATE: 11/20/2006
PATENT APPLICATION:　**US/10/561,487A**　　　TIME: 13:51:22

Input Set : **N:\efs\10561487a_efs\66168_03SeqList.txt**
Output Set: **N:\CRF4\11202006\J561487A.raw**

```
L:4504 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:528
L:4520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:720
L:4524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:768
L:4528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:816
L:4623 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:128
L:4627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:144
L:4631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:160
L:4647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:224
L:4651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:240
L:4655 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:256
L:4907 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:624
L:4999 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:192
```